

REMARKS

In the Office Action mailed February 3, 2004, the Examiner noted that claims 1-16 were pending, and rejected all claims. Claims 1, 5, 8, 10 and 14-16 have been amended and, thus, in view of the forgoing claims 1-16 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

In the Action on page 2 the Examiner objected to the drawings. With respect to the Examiners concern with the drawings and claim 13, figure 24 at reference number 61 shows the generating of a pseudo shape as described on page 46, line 8 through page 47, line 25. With respect to the Examiner concern with respect to claim 16, the detection unit of figure 1 detects the shapes, see also specification page 8, lines 19-21. The Examiner is also requested to review figures 11 and 12 and operations S3-S11 and the specification at page 17, line 15 through page 21, line 24. Withdrawal of the objection is requested.

In the Office Action the Examiner rejected all claims as indefinite. Some of the claims have been amended in consideration of the Examiners comments. However, the Examiner's concern with the remaining claims is not understood and clarification is requested. The Examiner is reminded that the claims are to be read in light of the teachings of the specification. Withdrawal of the rejection or clarification is requested.

In the Action, on page 4, the Examiner rejected all claims as non-statutory for apparently mixing statutory classes of claims. Apparatus claims 1-13 recite apparatus elements that perform actions with respect to each other, storage medium claim 14 recites the operations of the computer directed by the media, method claim 15 recites method operations and means claim 16 recites means plus function claim elements. These claims all appear to be in the proper format and do not appear to mix classes. The Examiner is requested to clarify the basis for this rejection or withdraw same.

On page 4 of the Office Action, the Examiner rejected claims 1 and 3-16 under 35 U.S.C. section 102 as anticipated by Ji. Page 10 of the Office Action rejects claim 2 under 35 U.S.C. § 103 over Ji with Sekine.

The present invention is directed to optimizing a 3D model using a list technique. In this technique redundant shapes are detected and listed for deletion or amendment. Then, the shapes are deleted or amended in accordance with the list. With such a system, it is easier for a new engineer to modify the 3D model in accordance with instructions provided by the designer or an analytical engineer.

Ji is directed to a machine interpretation of the shape of a component from a CAD database. In particular Ji discusses comparing feature patterns using certain comparison rules, the eliminating redundant features via identifying subsuming or equal features and combining adjacent features into a compound feature. Ji also discusses updating when a feature has been deleted. Ji, however, does not address much less teach or suggest how to implement a deletion list and amendment list processing system for optimizing a model where the model is reconstructed.

It is submitted that the invention of the independent claims distinguishes over the Ji and withdrawal of the rejection is requested.

The dependent claims 3-13 depend from the above-discussed independent claims and are patentable over the prior art for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art. For example, claim 3 emphasizes deleting shapes that are offset. Nothing in the prior art teaches or suggests such. It is submitted that the dependent claims are independently patentable over the prior art.

Sekine is directed to a system for handling specialized surfaces such as fillets. Sekine does not address using deletion lists and amendment lists to reconstruct a model. Sekine really adds nothing to Ji with respect to the p[re]sent invention.

It is submitted that the claims satisfy the requirements of 35 U.S.C. sections 101 and 112. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

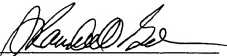
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If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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